

**IN THE CLAIMS:**

Claims 1 and 12 have been amended herein. Please note that all claims currently pending and under consideration in the referenced application are shown below. Please enter these claims as amended. This listing of claims will replace all prior versions and listings of claims in the application.

**Listing of Claims:**

1. (Currently amended) A method for determining an amount of a sprout inhibiting chemical on a crop, comprising:  
providing an extraction solution for dissolving a sprout inhibiting chemical of a crop sample and a predetermined amount of an internal standard in a container, wherein the sprout inhibitor is selected from the group of sprout inhibitors consisting of dimethylnaphthalene, chlorpropham, diisopropylnaphthalene, aromatic acids, maleic hydrazide, hydrogen peroxide plus, jasmonates, acetohydroxyacid synthase, carvone, and combinations thereof;  
collecting a crop sample from the crop at a crop storage location;  
placing the crop sample in the container;  
transporting the container including the crop sample from the crop storage location to a chemical testing facility;  
quantitatively measuring an amount of the sprout inhibiting chemical in the extraction solution at the chemical testing facility;  
comparing the amount of internal standard present in the container at the chemical testing facility with the amount of internal standard placed in the container at the crop storage location to obtain a calibration ratio;  
~~dividing a total surface area of the crop by a surface area of the crop sample to obtain a crop surface area multiplier;~~  
~~dividing the crop surface area multiplier by a total mass of the crop to obtain a crop surface area ratio; and~~  
multiplying the amount of sprout inhibiting chemical measured in the extraction solution, a total

surface area of the crop ~~the crop surface area ratio, and~~ the calibration ratio ~~ratio,~~  
dividing by a surface area of the crop sample and dividing by a total mass of the crop to  
determine the amount of sprout inhibitor present on the surface of the crop per mass of  
the crop.

2. (Cancelled).
3. (Previously presented) The method according to claim 1, wherein providing the extraction solution and the predetermined amount of an internal standard comprises sending a kit having the container including the extraction solution and the predetermined amount of the internal standard to the crop storage location.
4. (Previously presented) The method according to claim 1, wherein quantitatively measuring the amount of the sprout inhibiting chemical in the extraction solution comprises placing a portion of the extraction solution in a gas chromatograph.
5. (Original) The method according to claim 1, further comprising instructing a user on how to collect the sample.
6. (Original) The method according to claim 1, further comprising recording information about the sample.
7. (Previously presented) The method according to claim 1, wherein the crop sample is a tuber.
8. (Cancelled)
9. (Previously presented) The method according to claim 1, wherein the sprout inhibiting chemical is a substituted naphthalene or chlorpropham.

10. (Previously presented) The method according to claim 1, further comprising:  
calculating a ratio of a measured amount of the internal standard in relation to the predetermined  
amount of the internal standard; and  
calibrating the amount of the measured sprout inhibiting chemical based on the calculated ratio.

11. (Previously presented) The method according to claim 3, further comprising:  
placing the container including the sample in the kit; and  
wherein transporting the container including the sample comprises transporting the kit having the  
sample in the container to the chemical testing facility.

12. (Currently amended) A method for analyzing a sprout inhibitor on a tuber  
comprising:  
collecting a tuber sample comprising the sprout inhibitor from the tuber at a potato storage  
facility, wherein the sprout inhibitor is selected from the group of sprout inhibitors  
consisting of dimethylnaphthalene, chlorpropham, diisopropylnaphthalene, aromatic  
acids, maleic hydrazide, hydrogen peroxide plus, jasmonates, acetohydroxyacid synthase,  
carvone, and combinations thereof;  
depositing the tuber sample into a container including an extraction solution;  
transporting the container including the tuber sample to a chemical testing facility;  
assaying the sprout inhibitor in the extraction solution at the chemical testing facility;  
placing a predetermined amount of an internal standard in the extraction solution;  
quantifying an amount of the internal standard in the extraction solution;  
comparing the quantified amount of the internal standard in the extraction solution in the  
container at the chemical testing facility with the predetermined amount of the internal  
standard placed in the extraction solution deposited in the container at the potato storage  
facility to obtain a calibration ratio;  
~~dividing a total surface area of the tuber by a surface area of the tuber sample to obtain a tuber  
surface area multiplier;~~

~~dividing the tuber surface area multiplier by a total mass of the tuber to obtain a tuber surface area ratio; and~~

multiplying the amount of sprout inhibiting chemical measured in the extraction solution, ~~the tuber surface area ratio,~~ a total surface area of the tuber, and the calibration ratio dividing by a surface area of the tuber sample and dividing by a total mass of the tuber to determine the amount of sprout inhibitor present on the surface of the tuber per mass of the tuber.

13. (Original) The method according to claim 12, wherein collecting the tuber sample comprises cutting the tuber sample from the tuber.

14. (Cancelled)

15. (Previously presented) The method according to claim 12, wherein transporting the container comprises sending a kit including the container, the tuber sample, and the extraction solution to the potato storage facility.

16. (Original) The method according to claim 12, wherein assaying the sprout inhibitor comprises placing a portion of the extraction solution in a high pressure liquid chromatograph or a gas chromatograph.

17. (Original) The method according to claim 12, wherein assaying the sprout inhibitor in the extraction solution comprises quantitatively measuring an amount of the sprout inhibitor.

18. (Original) The method according to claim 12, further comprising instructing a user how to collect the tuber sample.

19. (Original) The method according to claim 12, further comprising recording information about the tuber sample.

20. (Previously presented) The method according to claim 12, further comprising washing the tuber at the potato storage facility.

21. (Previously presented) The method according to claim 15, further comprising:  
placing the container including the tuber sample in the kit; and  
wherein transporting the container including the tuber sample comprises sending the kit to the  
chemical testing facility.